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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,779	07/28/2003	Shinichi Nagano	240963US2SRD	4290
22850 7590 10/22/2007 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER HARPER, LEON JONATHAN	
			ART UNIT 2166	PAPER NUMBER
			NOTIFICATION DATE 10/22/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/627,779	Applicant(s) NAGANO ET AL.	
	Examiner Leon J. Harper	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/10/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed 8/3/2007 has been entered. Claims 1-18 have been amended. No claims have been added or cancelled. Accordingly, claims 1-18 are pending in this office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6529899 (hereinafter Kraft) in view of importing the Semantic Web in UDDI (hereinafter Payne) (art of record) and in further view of 5862325 (hereinafter reed) .

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2. As for claim 1 Kraft discloses: a second storage section configured to store which stores a database that associates preconditions representing, in predicate form, necessary conditions for users to use Web services via an information communication network, with post conditions representing, in predicate form, the effects of invocation of the corresponding Web services the precondition and post condition predicates in the second storage including predicate arguments represented as variables (See column 8 lines 26-32).

Kraft differs from the claimed invention in that Kraft does not explicitly disclose and acquiring from the second storage a combination of Web services which satisfies the user's request by logically combining the preconditions and post conditions for a plurality of Web services including a first Web service having the preconditions matching with the user data and a second Web service having the post conditions matching with the user data, and creating a Web service linking plan where the first Web service included in the combination is arranged to be performed after the second Web service included in the combination bases on an order of the logical combination, a first storage section which stores user data that makes predicates indicating a states of a coordination plan creating section configured to receive a user's request including search conditions for the Web services, acquire , from the second storage section matching user data in predicate form corresponding to the user's request.

Payne however does discloses: acquire from the second storage section a combination of Web services which satisfies the user's request by logically combining

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preconditions and post conditions for a plurality of Web services including first Web service having a precondition matching the user data and a second Web service having a post condition matching the user's request unify the preconditions and post conditions for the plurality of Web services acquired from the second storage section by replacing each predicate argument represented as a variable with a corresponding predicate argument representing a value of the state of the user acquired from the first storage section, each occurrence of a same variable being replaced with a same value of the state, (See page 4 1st paragraph), and Reed discloses: create a Web service linking plan that indicates a sequence of performing the combination of web services using the unified preconditions and post conditions where the second Web service included in the combination of Web services is arranged to be performed after the first Web service included in the combination of Web services and transmit the Web service linking plan to the user (See reed column 19 lines 37-41) and a first storage section configured to store user data arranged as predicates having predicate arguments, each predicate argument indicating a states of a user (See reed column 23 lines 27-31); coordination plan creating means for, when receiving a user's request including search conditions for the Web services, acquiring matching user data in predicate form corresponding to the user's request from the first storage section (See reed column 34 lines 49-53). It would have been obvious to an artisan of ordinary skill in the pertinent art to have incorporated the teachings of Payne and Reed into the system of Kraft. The modification would have been obvious because automatically disclosing web services

matching the user data and creating a web service linking plan will allow for faster and more efficient communication over the network.

As for claim 2, the rejection of claim 1 is incorporated, and further reed discloses: the coordination plan creating section is further configured to perform a first process of matching the predicate of the precondition with the predicate of the user data and matching the predicate of the post condition with the predicate of the user's request in respect to one Web service (See column 16 lines 5-11), and a second process of matching the predicate the precondition with a predicate of first predicate including the user data unmatched in the first process and matching the predicate of the post condition with a second predicate including the predicate of the user's request unmatched in the first process respect to other Web services excluding the one Web service (See column 115 lines 23-29).

As for claim 3, the rejection of claim 2 is incorporated, and further Reed discloses: the coordination plan creating section is configured to perform the second process by calling the first process recursively (See column 115 lines 25-30 note: the submitting of additional data is done in the same manner).

3. As for claim 4, the rejection of claim 1 is incorporated, and further reed discloses: the coordination plan creating section is configured to perform a first process of

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matching the predicate of the precondition with the predicate of the user data and matching the predicate of the post condition with the predicate of the user's request in respect to one Web service (See column 48 lines 35-39), and a third process of matching the predicate of the post condition with a third predicate including the predicate of the user's request unmatched in the first process in respect to other Web services excluding the one Web service (See column 48 lines 40-45).

As for claim 5, the rejection of claim 4 is incorporated, and further reed discloses the coordination plan creating section is configured to perform the second process by calling the first process recursively (See column 115 lines 25-30 note: the submitting of additional data is done in the same manner).

As for claim 6, the rejection of claim 1 is incorporated, and further Payne discloses: third storage section configured to store an ontology dictionary where a plurality of predicates describing each state by predicate logic notation are classified hierarchically in database form (See figure 1), wherein the coordination plan creating means creates matching user data by changing the predicate included in the user's request according to a hierarchical level in the ontology dictionary (See page 4 paragraph 2).

4. Claim 7 is a method claim corresponding to the apparatus of claim 1 and is thus rejected for the same reasons as set forth in the rejection of claim 1.

As for claim 8 the rejection of claim 7 is incorporated, and further reed discloses: a second step of matching the predicate of the precondition with a first predicate including the predicate of the user data unmatched in the first step and matching the predicate of the post condition with a second predicate including the predicate of the user's request unmatched in the fourth step in respect to other Web services excluding the one Web service (See column 115 lines 23-29).

Reed and Kraft differ from the claimed invention in that a first step of matching the predicate of the precondition with the predicate of the user data and matching the predicate of the post condition with the predicate of the user's request in respect to one Web service and Payne however, does disclose: a first step of matching the predicate of the precondition with the predicate of the user data and matching the predicate of the post condition with the predicate of the user's request in respect to one Web service (See page 4 1st paragraph). It would have been obvious to an artisan of ordinary skill in the pertinent art to have incorporated the teaching of Payne into the system of Reed and Kraft. The modification would have been obvious because matching with respect to one service is time saving and more efficient than always checking every service.

As for claim 9, the rejection of claim 8 is incorporated, and further reed discloses: carrying out the second step by calling the first step recursively. (See column 115 lines 25-30 note: the submitting of additional data is done in the same manner).

As for claim 10, the rejection of claim 7 is incorporated, and further reed discloses: a first step of precondition with the matching the predicate of the predicate of the user data and matching the predicate of the post condition with the predicate of the user's request in respect to one Web service (See column 16 lines 5-11), and a second step of matching the predicate of the post condition with a third predicate including the predicate the user's request unmatched in the sixth step in respect to other Web services excluding the one Web service (See column 115 lines 23-29).

As for claim 11, the rejection of claim 10 is incorporated, and further reed discloses: carrying out the second step by calling the first step recursively. (See column 115 lines 25-30 note: the submitting of additional data is done in the same manner).

As for claim 12, the rejection of claim 7 is incorporated, and further Payne discloses: using an ontology dictionary where a plurality of predicates describing each state by predicate logic notation are classified hierarchically database (See figure 1), creating the matching user data by changing the predicate included in the user's request according to a hierarchical level in the ontology dictionary (See page 4 paragraph 2).

Claims 13-18 are computer readable medium claims corresponding to the method claims 7-12 respectively and are thus rejected for the same reasons set forth in the rejection of claims 7-12.

Response to Arguments

Applicant's arguments filed 8/3/07 have been fully considered but they are not persuasive.

Applicant argues:

Applicants respectfully submit that Kraft, ~, and Reed fail to teach or suggest each feature of the independent claims. For example, Kraft, ~, and Reed fail to teach or suggest unifying predicate variable and value arguments to create a sequence of Web services in a linking plan.

Examiner responds:

Examiner is not persuaded. Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. Interpretation of Claims- Broadest Reasonable Interpretation During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon J. Harper whose telephone number is 571-272-0759. The examiner can normally be reached on 7:30AM - 4:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leon J Harper
Examiner
Art Unit 2166

LJH
Leon J. Harper
October 12, 2007


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SUPERVISORY PATENT EXAMINER